



Modeling the EUV/UV irradiance within the FP7 SOLID Project

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The solar EUV irradiance has strong effects on the Earth's ionosphere and thermosphere. Here we present latest results for the EUV spectral range carried out within the European FP7 Project SOLID. Specifically, we model the SSI variations in the EUV spectral range based on the analysis of images obtained with SOHO/EIT, PROBA2/SWAP, and SDO/AIA. These images are segmented to regions of solar activity using the SPoCA tool. Moreover, with the SOLar MODeling code (SOLMOD) we calculate intensity spectra representing the intensity emitted by these regions. We present the latest set of reconstructions and compare it to available data, such as SOHO/SEM, PROBA2/LYRA, ISS/SOLAR/SOLACES, and SDO/EVE. Furthermore, we will present a probabilistic method to obtain a consistent composite from the available data. These results are an important for understanding the spectral variability in the EUV/UV and as well as its effect on the Earth's upper atmosphere.